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State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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DOGM
MINERALS PROGRAM
FILE COPY

January 23, 1990

Mr. Joe D. Bierschied
San Rafael Energy Corporation
P. O. Box 398
Moab, Utah 84532

Dear Mr. Bierschied:

Re: Reclamation Surety Estimates for the Happy Jack and Radium King Sites,
M/037/024 and M/037/007, San Juan County, Utah

I have enclosed copies of the Division's most recent cost estimates for the two sites mentioned above. These costs represent the cost to the Division if we were to do the reclamation. Your costs would, no doubt, be lower. Please review these estimates. If you feel there are some gross miscalculations, don't hesitate to bring them to my attention.

Sincerely,

Holland Shepherd
Reclamation Specialist/Permit Lead

jb
Enclosure
cc: Wayne Hedberg
Tony Gallegos
MN5/175

Reclamation Estimate for Happy Jack Mine M/037/024

Prepared By
Utah State Division of Oil, Gas and Mining
January 17, 1990

Description	Quantity	Unit	\$/Unit	Total Cost (\$)
Facilities Reclamation				
Backfill and Seal Portals	6	Each Portal	300	\$1,800
Remove Trash	10	Acres	100	\$1,000
Grade for Uniformity	8	Acres	400	\$3,200
Revegetate	10	Acres	447	\$4,470
Contour top of Waste Dumps to 3h:1v	2	Acres	800	\$1,600
Subtotal				\$12,070
Totals				\$12,070
Add Contingency (10%)				\$1,210
TOTAL RECLAMATION COST (1990 Dollars)				\$13,280
TOTAL RECLAMATION COST (1992 Dollars) @ 1.93% Annual Inflation				\$14,000

Note: The surety is estimated through 1992 (3 growing seasons).

Revegetation Cost per Acre	Quantity	Unit	\$/Unit	Cost (\$)
Bare Costs				
Fertilizer (18-46-0)	100	Pounds	0.25	25 *
Seed Mix	20	Pounds	9	180 -
Native Hay Mulch	2	Tons	50	100 x
Subtotal				305
Application Costs				
Native Hay Mulch (spread by hand)	3.0	Hours	24	72
Native Hay Mulch (disc into ground)	0.3	Hours	67	23
Fertilizer (broadcast by hand)	0.5	Hours	24	12
Seed Mix (drilled)	0.5	Hours	24	12
Scarify (tractor with chain)	0.3	Hours	67	23
Subtotal				142
Total Revegetation Cost per Acre				447 REVEG